



DT15 Rec'd PCT/PTO JUN 26 2002

\$PCT

PATENT

Attorney Docket No. 206008

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

SAUNDERS et al.

Application No. 09/622,382

Filed: January 12, 2001

For: ADAPTIVE MULTIFILAR  
ANTENNA

Art Unit: 2821

Examiner: James C. Clinger

Date of Mailing of "Notice of Allowance  
and Base Issue Fee Due": March 26, 2002

Confirmation No.:3527

RECEIVED  
JUN -8 2002  
COM. MAIL ROOM

**REQUEST FOR CORRECTION OF TITLE OF INVENTION  
(ACCOMPANYING ISSUE FEE PAYMENT)**

Commissioner for Patents  
Box Issue Fee  
Washington, D.C. 20231

07/01/2002 GFREY1 00000143 09622382  
01 FC:141 1280.00 0P

Dear Sir:

The correct title for the subject application, as set forth above, is "Adaptive Multifilar Antenna." This is the title set forth in the Transmittal Letter to the United States Designated/Elected Office Concerning Filing Under 35 USC 371 (Att. A). Applicants have used that same title throughout. However, the Formal Notice of Allowance and Fee(s) Due form incorrectly identifies the title as "Dual-Band Octafilar Helix Antenna" (Att. B).

In reviewing the file, it was noted that this error occurred at the time of issuance of the Official Filing Receipt (Att. C.). Also, it appears that the incorrect title is the same title as one of the citations listed in the International Search Report on the underlying PCT application, specifically WO 97/11507 (Att. D).

It is accordingly requested that the subject application issue as a patent with the correct title. In this regard, the accompanying Issue Fee form has been modified to incorporate the correct title. In advance, prompt consideration of this request is appreciated.

In re Appln. of SAUNDERS et al.  
Application No. 09/622,382

Should any issues remain, the Examiner is invited to telephone the undersigned attorney at  
the number shown below.

Respectfully submitted,



---

Gordon R. Coons, Reg. No. 20821  
One of the Attorneys for Applicant(s)  
LEYDIG, VOIT & MAYER, LTD.  
Two Prudential Plaza, Suite 4900  
180 North Stetson  
Chicago, Illinois 60601-6780  
(312) 616-5600 (telephone)  
(312) 616-5700 (facsimile)

Date: June 20, 2002

In re Appln. of SAUNDERS et al.  
Application No. 09/622,382

CERTIFICATE OF MAILING

I hereby certify that this REQUEST FOR CORRECTION OF TITLE OF INVENTION (ACCOMPANYING ISSUE FEE PAYMENT) (along with any documents referred to as attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231.

Date: 6/20/02

Hudson R. Coons

<b>TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371</b>		<b>U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE</b>  <b>ATTORNEY'S DOCKET NO.</b> <b>206008</b>
		<b>U.S. APPLICATION NO.</b>
INTERNATIONAL APPLICATION NO. PCT/GB99/00469	INTERNATIONAL FILING DATE 15 February 1999	PRIORITY DATE CLAIMED 16 February 1998
TITLE OF INVENTION <b>ADAPTIVE MULTIFILAR ANTENNA</b>		
APPLICANT(S) FOR DO/EO/US <b>SAUNDERS, Simon Reza, and AGIUS, Andreas</b>		
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:		
<ol style="list-style-type: none"> <li>1. <input checked="" type="checkbox"/> This is a <b>FIRST</b> submission of items concerning a filing under 35 U.S.C. 371.</li> <li>2. <input type="checkbox"/> This is a <b>SECOND</b> or <b>SUBSEQUENT</b> submission of items concerning a filing under 35 U.S.C. 371.</li> <li>3. <input type="checkbox"/> This express request to begin national examination procedures (35 U.S.C. 371(f)) now rather than delay examination until the expiration of the applicable time limit set forth in 35 U.S.C. 371(b) and PCT Articles 22 and 39(1).</li> <li>4. <input type="checkbox"/> A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.</li> <li>5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2))             <ol style="list-style-type: none"> <li>a. <input type="checkbox"/> is transmitted herewith (required only if not transmitted by the International Bureau).</li> <li>b. <input checked="" type="checkbox"/> has been transmitted by the International Bureau.</li> <li>c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US).</li> </ol> </li> <li>6. <input type="checkbox"/> A translation of the International Application into English (35 U.S.C. 371(c)(2)).</li> <li>7. <input checked="" type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))             <ol style="list-style-type: none"> <li>a. <input type="checkbox"/> are transmitted herewith (required only if not transmitted by the International Bureau).</li> <li>b. <input type="checkbox"/> have been transmitted by the International Bureau.</li> <li>c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired.</li> <li>d. <input checked="" type="checkbox"/> have not been made and will not be made.</li> </ol> </li> <li>8. <input type="checkbox"/> A translation of the amendment to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).</li> <li>9. <input type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).</li> <li>10. <input type="checkbox"/> A copy or translation of the Amendments made by the Applicant during PCT Chapter II, which are attached as Annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).</li> </ol>		
Items 11 to 17 below concern other document(s) or information included:		
<ol style="list-style-type: none"> <li>11. <input type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98.</li> <li>12. <input type="checkbox"/> An assignment for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.</li> <li>13. <input checked="" type="checkbox"/> A <b>FIRST</b> preliminary amendment. <input type="checkbox"/> A <b>SECOND</b> or <b>SUBSEQUENT</b> preliminary amendment.</li> <li>14. <input type="checkbox"/> A substitute specification.</li> <li>15. <input type="checkbox"/> A change of power of attorney and/or address letter.</li> <li>16. <input type="checkbox"/> A verified small entity statement.</li> <li>17. <input type="checkbox"/> Other items or information:</li> </ol>		

EL303750151US

ATTACHMENT A



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

*Carol H.*

206008

NOTICE OF ALLOWANCE AND FEE(S) DUE

7590

03/26/2002

Leydig Voit & Mayer  
Two Prudential Plaza Suite 4900  
180 North Stetson  
Chicago, IL 60601-6780

LEYDIG VOIT & MAYER  
RECEIVED

EXAMINER

CLINGER, JAMES C

APR 03 2002

ART UNIT

CLASS-SUBCLASS

2821

343-895000

PAT/TM Due Date

*6-26-02*

DATE MAILED: 03/26/2002

*FINAL*

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/622,382	01/12/2001	Simon Reza Saunders	206008	3527

TITLE OF INVENTION: DUAL-BAND OCTAFILAR HELIX ANTENNA

TOTAL CLAIMS	APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
22	nonprovisional	NO	\$1280	\$0	\$1280	06/26/2002

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above. If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, and notify the United States Patent and Trademark Office of the change in status, or

B. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check the box below and enclose the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.

Applicant claims SMALL ENTITY status.  
See 37 CFR 1.27.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.



UNITED STATES PATENT AND TRADEMARK OFFICE

GR  
COMMISSIONER FOR PATENTS  
UNITED STATES PATENT AND TRADEMARK OFFICE  
WASHINGTON, D.C. 20231  
www.uspto.gov

APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	DRAWINGS	TOT CLAIMS	IND CLAIMS
09/622,382	01/12/2001	2821	1136	206008	21	20	2

FILING RECEIPT

Leydig Voit & Mayer  
Two Prudential Plaza Suite 4900  
180 North Stetson  
Chicago, IL 60601-6780



\*OC00000005726685\*

Date Mailed: 02/01/2001

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Customer Service Center. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the PTO processes the reply to the Notice, the PTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

LEYDIG, VOIT & MAYER  
RECEIVED

FEB 06 2001

PAT/TM Due Date

Applicant(s)

Simon Reza Saunders, Ash, UNITED KINGDOM;  
Andreas-Albertos Agius, Patras, GREECE;

Continuing Data as Claimed by Applicant

THIS APPLICATION IS A 371 OF PCT/GB99/00469 02/15/1999

Foreign Applications

UNITED KINGDOM 9803273 02/16/1998

DVS

If Required, Foreign Filing License Granted 02/01/2001

Title

Dual-band octafilar helix antenna

Preliminary Class

343

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Data entry by : NGUYEN, SON

Team : OIPE

Date: 02/01/2001



LH

ATTACHMENT C

**PATENT COOPERATION TREATY**  
**PCT**

**INTERNATIONAL SEARCH REPORT**

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>15/W32271WO</b>	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. <b>PCT/GB 99/ 00469</b>	International filing date (day/month/year) <b>15/02/1999</b>	(Earliest) Priority Date (day/month/year) <b>16/02/1998</b>
Applicant <b>UNIVERSITY OF SURREY et al.</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 2 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
  - the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).
- b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing :
  - contained in the international application in written form.
  - filed together with the international application in computer readable form.
  - furnished subsequently to this Authority in written form.
  - furnished subsequently to this Authority in computer readable form.
  - the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
  - the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2.  Certain claims were found unsearchable (See Box I).

3.  Unity of Invention is lacking (see Box II).

4. With regard to the title,

- the text is approved as submitted by the applicant.
- the text has been established by this Authority to read as follows:

5. With regard to the abstract,

- the text is approved as submitted by the applicant.
- the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No.

- as suggested by the applicant.
- because the applicant failed to suggest a figure.
- because this figure better characterizes the invention.

2

None of the figures.

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 99/00469

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC 6 H01Q11/08 H01Q5/00

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 H01Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 97 11507 A (QUALCOMM INC) 27 March 1997	1-5, 14, 16, 17, 22, 23
A	see page 2, line 19 - page 4, line 7 ---	6-21
X	US 5 606 332 A (DARDEN IV WILLIAM H ET AL) 25 February 1997	1, 3, 14-18, 23
A	see column 1, line 39 - column 2, line 56 see column 3, line 41 - line 56 ---	2-22
X	US 5 600 341 A (KURBY CHRISTOPHER N ET AL) 4 February 1997	1, 3, 14-18, 23
A	see column 1, line 39 - column 3, line 14 ---	2-22
A	EP 0 767 508 A (NOKIA MOBILE PHONES LTD) 9 April 1997 see column 3, line 43 - column 5, line 5 -----	1-23

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

\* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority, claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

Date of mailing of the international search report

26 May 1999

02/06/1999

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Wattiaux, V

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB 99/00469

Patent document cited in search report	Publication date	Patent family member(s)			Publication date
WO 9711507	A 27-03-1997	US 5828348 A			27-10-1998
		AU 7368396 A			09-04-1997
		BR 9606654 A			30-09-1997
		CN 1165588 A			19-11-1997
		EP 0793864 A			10-09-1997
		FI 971686 A			23-06-1997
		JP 10509577 T			14-09-1998
US 5606332	A 25-02-1997	BR 9603473 A			12-05-1998
		CN 1147160 A			09-04-1997
		GB 2304463 A			19-03-1997
		IT RM960576 A			12-02-1998
		JP 9186522 A			15-07-1997
US 5600341	A 04-02-1997	BR 9603471 A			12-05-1998
		CN 1147161 A			09-04-1997
		GB 2304462 A			19-03-1997
		IT RM960575 A			12-02-1998
		JP 9107237 A			22-04-1997
EP 0767508	A 09-04-1997	GB 2306056 A			23-04-1997
		JP 9130288 A			16-05-1997

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION  
International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification <sup>6</sup> :	A1	(11) International Publication Number: WO 97/11507 (43) International Publication Date: 27 March 1997 (27.03.97)
H01Q 11/08, 5/00		
(21) International Application Number:	PCT/US96/15196	(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, ARIPO patent (KE, LS, MW, SD, SZ, UG), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).
(22) International Filing Date:	23 September 1996 (23.09.96)	
(30) Priority Data:	532,921 22 September 1995 (22.09.95) US	
(71) Applicant:	QUALCOMM INCORPORATED [US/US]; 6455 Lusk Boulevard, San Diego, CA 92121 (US).	
(72) Inventors:	TASSOUDJI, Mohammad, Ali; 5240 Fiore Terrace #202, San Diego, CA 92122 (US). THOMPSON, James, H.; 7523 Brava Street, Carlsbad, CA 92009 (US). STANDKE, Randolph, E.; 13283 Boomer Court, San Diego, CA 92129 (US).	
(74) Agents:	MILLER, Russell, B. et al.; Qualcomm Incorporated, 6455 Lusk Boulevard, San Diego, CA 92121 (US).	

Published

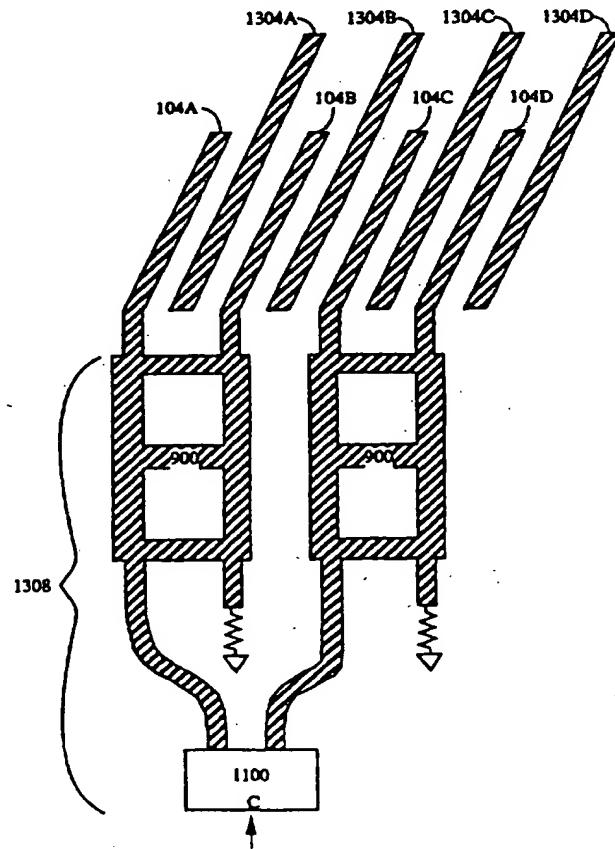
With international search report.

Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

(54) Title: DUAL-BAND OCTAFILAR HELIX ANTENNA

(57) Abstract

A dual-band octafilar helix antenna (100) operational at two frequencies, while maintaining a relatively small package size. The dual-band octafilar antenna (100) is manufactured by disposing radiators (104, 1304, 2304, 2306) and a feed network (308, 1308, 2308, 2310) onto a flexible substrate (108, 2400) and forming the substrate into a cylindrical shape to obtain the helical configuration. The dual-band octafilar helix antenna (100) includes four active radiators (104, 2304) which are matched to a first frequency and disposed on a radiator portion (204) of the flexible substrate (108). Four additional radiators (1304, 2306), which may be either passive or active radiators, are matched to a second frequency, are also disposed on the radiator portion (204) of the substrate (108, 2400) and interleaved with the active radiators (104, 2304). At least one feed network (308, 1308, 2308, 2310) is provided on a feed portion (208) of the substrate (108, 2400) that provides 0°, 90°, 180°, and 270° signals to active radiators (104, 2304). The sets of radiators (104, 1304, 2304, 2306) and associated feed networks (308, 1308, 2308, 2310) may be formed on opposing sides of a single substrate (108, 2400) or on spaced-apart layers (2500, 2502) in a multi-layered support substrate design.





## PART B - FEE(S) TRANSMITTAL

Complete and mail this form, together with applicable fee(s), to:

Box ISSUE FEE  
Assistant Commissioner for Patents  
Washington, D.C. 20231

**MAILING INSTRUCTIONS:** This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 4 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Legibly mark-up with any corrections or use Block 1)

7590                    03/26/2002

Leydig Voit & Mayer  
Two Prudential Plaza Suite 4900  
180 North Stetson  
Chicago, IL 60601-6780

Note: The certificate of mailing below can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing.

### Certificate of Mailing

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Box Issue Fee address above on the date indicated below.

Carol A. Graves	(Depositor's name)
<i>Carol A. Graves</i>	(Signature)
June 20, 2002	(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/622,382	01/12/2001	Simon Reza Saunders	206008	3527

TITLE OF INVENTION: ~~ADAPTIVE MULTIFILAR ANTENNA~~

### ADAPTIVE MULTIFILAR ANTENNA

TOTAL CLAIMS	APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
22	nonprovisional	NO	\$1280	\$0	\$1280	06/26/2002

EXAMINER	ART UNIT	CLASS-SUBCLASS
CLINGER, JAMES C	2821	343-895000

Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). Use of PTO form(s) and Customer Number are recommended, but not required.

Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

"Fee Address" indication (or "Fee Address" Indication form PTO/SB/47) attached.

2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 LEYDIG, VOIT &

2 MAYER, LTD.

3 \_\_\_\_\_

### 3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment.

#### (A) NAME OF ASSIGNEE

UNIVERSITY OF SURREY

#### (B) RESIDENCE: (CITY and STATE OR COUNTRY)

GUILDFORD, SURREY, UNITED KINGDOM

Please check the appropriate assignee category or categories (will not be printed on the patent)  individual  corporation or other private group entity  government

#### 4a. The following fee(s) are enclosed:

#### 4b. Payment of Fee(s):

Issue Fee

A check in the amount of the fee(s) is enclosed.

Publication Fee

Payment by credit card. Form PTO-2038 is attached.

Advance Order - # of Copies \_\_\_\_\_

The Commissioner is hereby authorized to charge the required fee(s), or credit any overpayment, to Deposit Account Number 12-1216 (enclose an extra copy of this form).

The COMMISSIONER OF PATENTS AND TRADEMARKS is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above.

(Authorized signature)

(Date)

*Gordon R. Coons, Reg. 20821*

June 20, 2002

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending on the needs of the individual case. Any comments on the amount of time required to complete this form should be sent to the Chief Information Officer, United States Patent and Trademark Office, Washington, D.C. 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND FEES AND THIS FORM TO: Box Issue Fee, Assistant Commissioner for Patents, Washington, D.C. 20231

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

01/29/2004 THILLS 0000002 121216 0962238

01 FC:1501 1280.00 DA

TRANSMIT THIS FORM WITH FEE(S)